UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/520,136	01/03/2005	Bang Luu	263662US0PCT	9519

22850 7590 04/30/2007

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER	
CHENG, KAREN	
ART UNIT	PAPER NUMBER
1626	

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
3 MONTHS	04/30/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/30/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patentdocket@oblon.com
oblonpat@oblon.com
jgardner@oblon.com

Office Action Summary	Application No.	Applicant(s)	
	10/520,136	LUU ET AL.	
	Examiner	Art Unit	
	Karen Cheng	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 March 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-8* is/are pending in the application.

4a) Of the above claim(s) *7 and 8* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/3/05, 3/24/05, 3/27/07*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-8 are currently pending in the instant application. Claims 1-6 (in part), 7 and 8 are withdrawn from consideration as being non-elected subject matter.

Response to Election/Restrictions

Applicant's election with traverse of the subject matter of claims 1-6 drawn to compounds of formula I, salts, and pharmaceutical compositions, wherein one of R^1, R^2, R^3, or R^4 is an alkoxy group containing 1 to 20 carbon atoms, and the three other groups all represent hydrogen or an alkyl group containing 1 to 6 carbon atoms and X and Y are as defined in the reply filed on 03/19/2007 is acknowledged. The traversal is on the ground(s) that the Examiner has not established that search of the full scope of the claims would constitute a search burden and that a technical relationship between compounds, method for making and method for use exists, and when taken as a whole is what defines the contribution over the prior art.

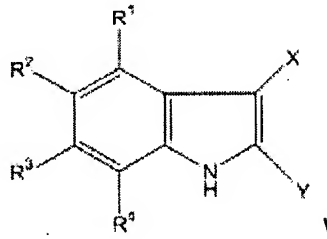
This argument is not found persuasive because, although it is obvious on its face that search of the full scope of the claims would constitute a search burden, the Examiner has only to establish that unity of invention is lacking in this application since it is a 371 of an international application. The Examiner has, in fact, established that unity of invention is lacking (see original restriction requirement, mailed 2/20/07). The requirement is still deemed proper.

The election of Group I by applicant has resulted in the following elected invention.

Status of the Claims

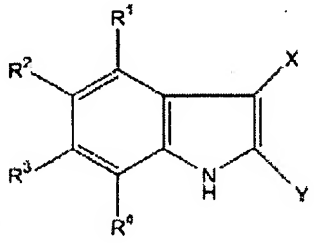
Claims 1-8 are pending in this application. **Claims 7-8** are withdrawn from further consideration by the Examiner as being drawn to non-elected inventions under 37 CFR § 1.142(b). The withdrawn subject matter is patentably distinct from the elected subject matter as it differs in structure and element and would require separate search and examination considerations. In addition, a reference that anticipates one invention would not render obvious the other invention.

Scope of Elected Subject Matter

The scope of the invention of the elected subject matter that will be examined and searched is the compounds, salts, and pharmaceutical compositions of **Claims 1-6** which are drawn to the core structure of  wherein one of R^1, R^2, R^3 or R^4 is an alkoxy group containing 1 to 20 carbon atoms, and the three other groups all represent hydrogen or an alkyl group containing 1 to 6 carbon atoms and X and Y are as defined.

Scope of Withdrawn Subject Matter

As a result of the election and the corresponding scope of the invention, identified supra, the remaining subject matter is is the compounds, salts, and pharmaceutical compositions of **Claims 1-6** which are drawn to the core structure

of  wherein more than one of R^1, R^2, R^3 or R^4 is an alkoxy group containing 1 to 20 carbon atoms, and the other groups represent hydrogen, an alkyl group containing 1 to 6 carbon atoms, acetyl group, or hydroxyl group, and the other variables are as defined.

The withdrawn subject matter is patentably distinct from the elected subject matter as it differs in structure and element, does not have unity with the elected compound, and therefore is withdrawn by means of a restriction requirement. A reference that anticipates the elected/examined subject matter would not render obvious the non-elected subject matter. This recognized chemical diversity of the functional groups is apparent by the different fields of search, required for the non-elected species versus the elected compounds. All compounds falling outside the search strategy of the elected compound and the structure shown above are heretofore directed to non-elected subject matter and are withdrawn from consideration under 35 U.S.C. § 121 and 37 C.F.R. § 1.142(b). It is suggested that applicant cancel withdrawn subject matter in order to advance prosecution.

Priority

The application is a 371 of International Application No. PCT/0JP03/09244, filed on 07/22/2003, which claims the benefit of foreign priority under 35 U.S.C. 119, to Japanese Application No. 2002-211327, filed on 07/19/2002.

Information Disclosure Statement

Applicant's Information Disclosure Statement(s) filed on 01/03/05, 03/24/05, and 03/27/07 have been considered. Please refer to Applicant's copies of the 1449 submitted herewith.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 4 and 5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In *In re Wands*, 8 USPQ2d 1400 (1988), factors to be considered in determining whether a disclosure meets the enablement requirement of 35 U.S.C. § 112, first paragraph, have been described. They are:

1. the nature of the invention,
2. the state of the prior art,
3. the predictability or lack thereof in the art,
4. the amount of direction or guidance present,
5. the presence or absence of working examples,
6. the breadth of the claims,

7. the quantity of experimentation needed, and

8. the level of the skill in the art.

The nature of the invention

The nature of the invention is directed to a method of use of a compound of claim 1 for prophylactic or therapeutic drug for brain dysfunction or neuropathy and as an agent for promoting differentiation of a stem cell.

The state of the prior art and the predictability or lack thereof in the art

The state of the prior art is that the pharmacological art involves screening in vitro and in vivo to determine which compounds exhibit the desired pharmacological activities (i.e. what compounds can treat or prevent brain dysfunction or neuropathy or promotedifferentiation of a stem cell). There is no absolute predictability even in view of the seemingly high level of skill in the art. The existence of these obstacles establishes that that contemporary knowledge in the art would prevent one of ordinary skill in the art from accepting any preventive regimen on its fact.

The instant claimed invention is highly unpredictable as discussed below:

It is noted that the pharmaceutical art is unpredictable, requiring each embodiment to be individually assessed for physiological activity. In re Fisher, 427 F.2d 833, 166 USPQ 18 (CCPA 1970) indicates that the more unpredictable an area is, the more specific enablement is necessary in order to satisfy the statute. The burden of enabling one skilled in the art to prevent brain dysfunction or neuropathy would be much greater than that of enabling the treatment of brain dysfunction or neuropathy. In the instant case, the specification does not provide guidance as to how one skilled in the art

would accomplish the objective of preventing brain dysfunction or neuropathy. Nor is there any guidance provided as to a specific protocol to be utilized in order to show the efficacy of the presently claimed active ingredients for preventing brain dysfunction or neuropathy.

Specifically, it is highly unlikely, and the Office would require experimental evidence to support the contention that the claim specified could actually prevent brain dysfunction or neuropathy by simply administering, by any method, a therapeutically active amount of the claim specified agents. The specification fails to enable one of ordinary skill in the art to practice the presently claimed method for preventing brain dysfunction or neuropathy.

"To prevent" actually means to anticipate or counter in advance, to keep from happening etc. (as per Webster's II Dictionary) and there is no disclosure as to how one skilled in the art can reasonably establish the basis and the type of subject to which the instant compositions can be administered to order to have the "prevention" effect. There is no evidence of record, which would enable the skilled artisan in the identification of the people who have the potential of becoming afflicted with brain dysfunction or neuropathy in general. Since applicants "preventive" assertion is contrary to what is known in medicine, proof must be provided that this revolutionary assertion has merits.

Applicants' claims also include the treatment of brain dysfunction, which includes Alzheimer's Disease. The state of the prior art is there is no known cure or prevention for Alzheimer's disease and that there are only four medications available in the United

States available to temporarily slow the early stages of Alzheimer's disease. The current drugs for the treatment of Alzheimer's disease, Aricept, Exelon, Reminyl and Cognex, treat early stages of Alzheimer's disease by delaying the breakdown of acetylcholine. Memantine, which blocks excess amounts of glutamate treats late stage Alzheimer's disease. (URL: http://www.ninds.nih.gov/disorders/alzheimersdisease/alzheimersdisease.htm). The outlines of a pathogenic cascade that could explain cognitive dysfunction in patients with Alzheimer's Disease are only beginning to emerge. Many questions remain regarding the causes of Alzheimer's and the process of the disease. The success of potential treatment therapies for individuals afflicted with Alzheimer's cannot be predicted, according to Selkoe (see Physiological Reviews, vol. 81(2), 2001, p. 760). Currently, research is ongoing but the promise of potential treatments does not substantiate the claim that treatments exist.

Neuropathy is the abnormal function or disease of the nerves and can result in pain or paralysis. According to MayoClinic.com, (see http://www.mayoclinic.com/print/peripheral-neuropathy/DS00131/DSECTION=8&METHOD=print), treatment is usually directed to management of the underlying condition, repairing damage, and providing symptom relief. Various factors may be responsible for neuropathy, including diabetes, inflammatory or autoimmune processes, nerve pressure, all of which require different treatment. Medications that are currently prescribed ease pain symptoms but due to the complexity of the nervous system, treatment for neuropathy differs according to each

individual person. With regards to neurogenic pain, there remain very few pharmaceutical agents that are effective in alleviating this type of chronic pain to any appreciable degree. This is due in large part to the fact that the precise mechanisms of neuropathic pain remain elusive (see Current Pharmaceutical Design, 2006, vol. 12, p. 2192). Thus treatment for neuropathy remains elusive.

Applicants' claims also include the differentiation of a stem cell. According to Stem Cell Information, a resource of the National Institutes of Health, a primary goal in study of human embryonic stem cells is the identification of how undifferentiated stem cells become differentiated. A significant hurdle to use of stem cells is that scientists do not yet fully understand the signals that turn specific genes on and off to influence the differentiation of the stem cell. Finally, though the promise of stem cell therapies is exciting, significant technical hurdles remain that still require many years of intensive research (see http://stemcells.nih.gov/info/basics/basics6.asp). Although it is widely believed that the adult mammalian brain does contain stem cells, there is no consensus about how many populations of central nervous stem cells exist, how they may be related, and how they function *in vivo*. Because there are no markers currently available to identify the cells *in vivo*, the only method for testing whether a given population of CNS cells contains stem cells is to isolate the cells and manipulate them *in vitro*, a process that may change their intrinsic properties (see http://stemcells.nih.gov/info/scireport/chapter4.asp).

The amount of direction or guidance present and the presence or absence of working examples

The specification provides data regarding the effect of the compounds on neural stem cells *in vitro* (see Table 9, p. 51). However as stated above, isolation and manipulation of cells *in vitro* may change their actual intrinsic properties.

The breadth of the claims

The instant breadth of the rejected claims is broader than the disclosure, specifically, the instant claims include prophylactic or therapeutic activity for brain dysfunction or neuropathy, and promotion of differentiation of a stem cell. However, the specification fails to provide evidence to substantiate these claims.

The quantity or experimentation needed and the level of skill in the art

It would require undue experimentation of one of ordinary skill in the art to ascertain the effectiveness of the compound in the prophylactic or therapeutic activity for brain dysfunction or neuropathy, and promotion of differentiation of a stem cell. Factors such as "sufficient working examples", "the level of skill in the art" and "predictability", etc. have been demonstrated to be sufficiently lacking in the instant claims. In view of the breadth of the claims, the chemical nature of the invention and unpredictability of prophylactic or therapeutic activity for brain dysfunction or neuropathy, and promotion of differentiation of a stem cell, and the lack of working examples regarding the activity as claimed, one skilled in the art would have to undergo an undue amount of experimentation to use the instantly claimed invention commensurate in cope with the claims.

Genentech Inc. v. Novo Nordisk A/S (CA FC) 42 USPQ2d 1001, states that " a patent is not a hunting license. It is not a reward for search, but compensation for its

successful conclusion" and "[p]atent protection is granted in return for an enabling disclosure of an invention, not for vague intimations of general ideas that may or may not be workable".

Therefore, in view of the Wands factors and In re Fisher (CCPA 1970) discussed above, to practice the claimed invention herein, it is apparent that undue experimentation is necessary because of variability in prediction of outcome that is not addressed by the present application disclosure, examples, teaching and guidance presented. Absent factual data to the contrary, the amount and level of experimentation needed is undue. Therefore, claims 4 and 5 are rejected under 35 U.S.C. § 112, 1st paragraph.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-3, 5 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-3, 5 and 6 recite the limitation "derivative represented by the following general formula" or "indole derivative." The specification fails to limit and clearly delineate what can be considered a "derivative" and "general." According to Hackh's chemical dictionary, "derivative" is defined as a compound, usually organic obtained from another compound by a simple chemical process or an organic compound containing a structural radical similar to that from which it is derived (Hackh's chemical dictionary, 1972). Also according to Webster's

dictionary, the word "general" is defined as not confined by specialization or careful limitation." Such language fails to clearly define the subject matter being claimed. Thus the terms "derivative" and "general" of Claims 1-3, 5 and 6 are not defined in the claims so as to know the metes and bounds of the claims. Therefore, Claims 1-3, 5 and 6 are indefinite. It is suggested that the phrase derivative be replaced with compound and the term general be deleted in order to overcome this rejection.

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 5 recites the term "agent." The specification fails to limit and clearly delineate what can be considered an "agent." According to Webster's dictionary, the word "agent" is defined as something that produces or is capable of producing an effect. Such language fails to clearly define the subject matter being claimed. Thus the term "agent" is not defined in the claim or specification so as to know the metes and bounds of the claim. Therefore Claim 5 is indefinite.

Claims 1 and 3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 3 recite the term "containing" which is open-ended. According to MPEP 2111.03, the transitional term "comprising", which is synonymous with "including," "containing," or "characterized by," is inclusive or open-ended and does not exclude additional, unrecited elements or method steps. See, e.g., Mars Inc. v. H.J. Heinz Co., 377 F.3d 1369,1376, 71 USPQ2d 1837, 1843 (Fed. Cir. 2004) ("like the term comprising,' the terms containing' and mixture' are open-ended.").

Such language implies the drug is not limited to compounds of formula (I). Therefore Claims 1 and 3 are indefinite. These rejections can be overcome by replacing the term "containing" with closed-language such as "consisting."

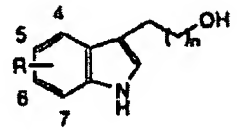
Claims 3-4 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 3 and 4 recite the term "drug" which the specification defines as "containing" the indole derivative or its salt (see p. 9). As stated above, the term "containing" is open-ended, and as a result, implies that the drug is not limited to compounds of formula (I). Such language fails to clearly define the subject matter being claimed. Thus the term "drug" is not defined in the claims or specification so as to know the metes and bounds of the claims. Therefore Claims 3 and 4 are indefinite.

Claim Rejections - 35 USC § 102

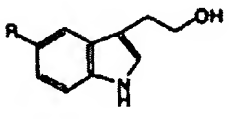
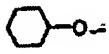
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

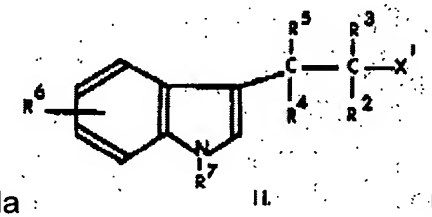
> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1 and 3-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Kamiya *et al* (see Chem. Pharm. Bull. 49(5), 2001, p. 563-571. Kamiya *et al* disclose



compounds of formula III n=1,2 wherein n=1 and R = 5-$O(CH_2)_5CH_3$; 6-

$O(CH_2)_8CH_3$; 4-$O(CH_2)_8CH_3$; 7-$O(CH_2)_8CH_3$; and n =2 and R = 5-$O(CH_2)_5CH_3$ (see p. 567). Further they disclose compounds of  wherein R is $CH_3(CH_2)_3O$, $CH_3(CH_2)_4O$, $CH_3(CH_2)_7O$, $CH_3(CH_2)_8O$,  , $CH_3(CH_2)_6O$ and $CH_3(CH_2)_{11}O$ (see p. 568, Table 4). These compounds correspond to applicant's claimed invention wherein one of R^1, R^2, R^3, and R^4 is alkoxy group containing 1 to 20 carbon atoms, and one of X and Y is $-(CH_2)_nOH$ wherein n is 0 to 30, and the other is a H.

Claims 1 and 3-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Demerson *et al* in US Patent No. 3,974,179, issued on 8/10/76. Demerson *et al* disclose compounds of formula  II used as intermediates in synthesis. They reference example 2 wherein R^7 is H, and X is O when describing compounds found in Table I, which include

Ex.	STARTING MATERIAL OF FORMULA II					
	R^2	R^3	R^4	R^5	R^6	X
29	H	H	H	H	5-OCH_3	O
63	H	H	H	H	6-OC_6H_5	O

(see column 17)

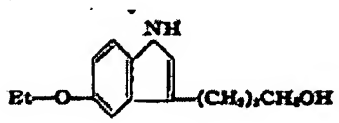
(see column 21) and also compounds found in Table IX

EXAMPLE	STARTING MATERIAL OF FORMULA II					
	R^2	R^3	R^4	R^5	R^6	X

488	H	H	H	H	4-CCH_3 / 5-OCH_3 / 6-OCH_3 / 7-OCH_3	O
489	H	H	H	H	4-OCH_3	O

(see column 49). These compounds correspond to applicant's claimed invention wherein one of R^1, R^2, R^3, and R^4 is alkoxy group containing 1 to 20 carbon atoms, and one of X and Y is $-(CH_2)_nOH$ wherein n is 0 to 30, and the other is a H.

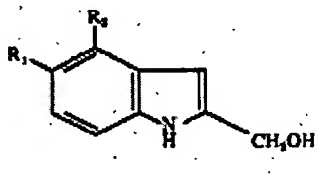
Claims 1 and 3-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Murphy *et al* (see Journal of the American Pharmaceutical Association, Scientific Edition, vol. 32, 1943, p. 83-89). Murphy *et al* disclose compound



(VIII)

on p. 84.

Claims 1 and 3-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Heerdt *et al* in US Patent No. 3,996,241. Heerdt *et al* disclose compounds of formula



wherein R_1 and R_2 can be hydrogen or lower alkyl, with examples of compounds such as 5-Methoxy-4-methyl-2-hydroxymethylindole 5-ethoxy-4-methyl-2-hydroxymethyl-indole; 5-Methoxy-2-hydroxymethyl-indole 5-Ethoxy-2-hydroxymethyl-indole. disclosed in column 4.

Claims 1 and 3-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Hammerly in US Pub No. 2002/0058648. Hammerly discloses compounds

5-methoxy-indole-3-carbinol, 5-ethoxy-indole-3-carbinol, 5-propyloxy-indole-3-carbinol, 5-butyloxy-indole-3-carbinol, 5-amyloxy-indole-3-carbinol, in column 1, paragraph 6.

Claims 1 and 3-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Lavielle *et al* in US Patent No. 5,703,070. Lavielle *et al* disclose compounds 2-(5-Methoxyindol-3-yl)ethanol and 3-(5-Methoxyindol-3-yl)propan-1-ol.

Note: Due to the sheer scope of the claimed subject matter, the list of rejections under 35 U.S.C. 102(b) is not exhaustive.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

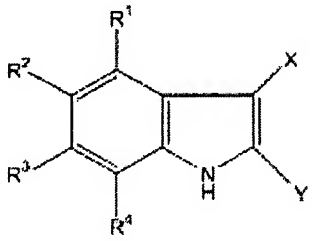
> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

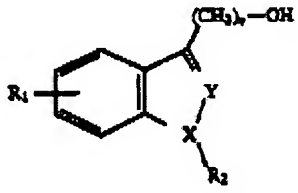
Claims 1-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lavielle et al (see US Patent No. 5,703,070).

Applicants' instant elected invention in claims 1-6 teach compounds and pharmaceutical compositions of formula



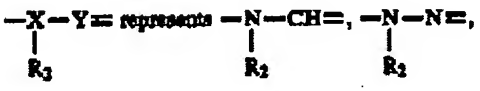
(1) wherein at least one of R^1, R^2, R^3, and R^4 represents an alkoxy group containing 1 to 20 carbon atoms, and other groups of the R^1, R^2, R^3, and R^4 represent hydrogen, an alkyl group containing 1 to 6 carbon atoms, acetyl group, or hydroxyl group; and either one of X and Y represents $-(CH_2)_nOH$ wherein n is an integer of 0 to 30, and the other one of the X and Y represents hydrogen atom; or a salt thereof.

Determination of the scope and content of the prior art (MPEP §2141.01)

Lavielle *et al* teach compounds of formula  wherein

R_1 represents a hydrogen or halogen atom or a linear or branched (C_1–C_6)alkyl, linear or branched (C_1–C_6) alkoxy, trihalomethyl or hydroxyl group,

R_2 represents a hydrogen atom or a linear or branched (C_1–C_6)alkyl or phenyl group (which is unsubstituted or substituted by one or a number of halogen atoms or alkyl, alkoxy, hydroxyl or trihalomethyl group),

and  and

n is 1, 2, 3, 4, 5, or 6 with specific compound **3-(5-Methoxy-1-methylindol-3-yl)propan-1-ol** disclosed.

Ascertainment of the different between the prior art and the claims (MPEP §2141.02)

The difference between the prior art of Lavielle *et al* and the instantly claimed compounds of applicant is that the invention of Lavielle *et al* is directed to tertiary amine compounds rather than the secondary amine compounds claimed in the instant invention.

Finding of prima facie obviousness- rational and motivation (MPEP §2142-2143)

Lavielle *et al* is analogous art because the compounds found in the art possess similar activity. In Ex part Bluestone, 135 USPQ 199, secondary and tertiary amines are stated to be interchangeable. In the absence of unexpected results, one skilled in the art would expect that the instant claims which are analogous to the compounds of

Lavielle *et al*, i.e. tertiary amine vs secondary amine, is prima facie. The motivation to make the claimed compounds derives from the expectation that structurally similar compounds are generally expected to have similar properties and have similar utilities. In the instant case, the compounds of Lavielle *et al* are disclosed to have pharmacological activity. The explicit teaching of Lavielle *et al* together with the enabled examples would have motivated one skilled in the art to modify the known compounds with such generic teaching with the expectation that they would all have similar activity as taught by Lavielle *et al*.

Claim Objections

Claim 4 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 3. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k). A drug's intended use does not further limit the claim.

Claims 1-6 are objected to because of the following informalities: they contain or are dependent on subject matter that has been withdrawn from consideration. Appropriate correction is required.

Specification

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract

on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract is more than one paragraph. Appropriate correction is required.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karen Cheng whose telephone number is 571-272-6233. The examiner can normally be reached on M-F, 9AM to 5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on (571)272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Karen Cheng
Patent Examiner, AU 1626

KAMAL A. SAEED, Ph.D.
PRIMARY EXAMINER

Joseph McKane
Supervisory Patent Examiner, AU 1626